~~Claims~~

1. A peptide having 40 to 200 amino acid residues and comprising at least 40 amino acids of an amino acid sequence as shown in SEQ ID NO 1, beginning with the amino acid residue in any one of positions 1 to 5 and ending with an amino acid residue in any one of positions 40 to 104 or a homologuous sequence.

2. A peptide according to claim 1, comprising an amino acid sequence that is identical or homologous to an amino acid sequence selected from the group consisting of the amino acid sequences:

of SEQ ID NO 2, beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of positions 40 to 104;

of SEQ ID NO 3, beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of positions 40 to 104;

of SEQ ID NO 4, beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of positions 40 to 104; and

of SEQ ID NO 5, beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of positions 40 to 104.

3. A peptide according to claim 1 or claim 2, comprising at least 40 amino acids having an amino acid sequence that is at least 85% identical to any one of the amino acid sequences of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, and SEQ ID NO 5.

4. A peptide according to any one of the preceding claims, comprising at least 70 amino acid residues having an amino acid sequence that is identical or homologuous to an amino acid sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, or SEQ ID NO 5 beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of the positions 70 to 104.

5. A peptide according to any one of the preceding claims, comprising at least 100 amino acid residues having an amino acid sequence that is identical or homologuous to an amino acid sequence of SEQ ID NO 1, SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, or SEQ ID NO 5 beginning with the amino acid residue in any one of positions 1 to 5 and ending with the amino acid residue in any one of the positions 100 to 104.

6. A peptide according claim 1, having the amino acid sequence of SEQ ID NO 1.

7. A peptide according to claim 1, comprising an amino acid sequence which is at least 85% identical to the amino acid sequence of SEQ ID NO 1.

8. A peptide according to anyone of the preceding claims, comprising additionally a cysteine residue.

9. A peptide according to claim 8, wherein the cysteine residue is located at one terminus of the peptide sequence.

10. Process for producing a peptide according to claim 1 wherein an organic synthesis is used.

11. Process according to claim 10, wherein the synthesis is carried out using Fmoc or Boc chemistry and an automated peptide synthesizer.

12. Process according to claim 11, wherein FastMoc chemistry is used.

13. Process according to any one of claims 10 to 12, wherein the amino groups of the amino acids are protected with 9-fluorenylmethyloxycarbonyl (Fmoc) groups and side groups are protected with the following groups: the carboxyl or hydroxyl group, respectively, of aspartic acid, glutamic acid, serine, threonine and tyrosine with O-t-butyl; the amino or imino group, respectively, of histidine, asparagine and glutamine with trityl; the amino group of lysine with t-butyloxycarbonyl; and the imino group of arginine with PMC and wherein the activation and coupling is done in the presence of HBTU/diisopropylethylamine, and wherein the peptide is deprotected with piperidine and the final product is N-terminally acetylated using acetic anhydride.

14. Process according to any one of claims 10 or 13, wherein double couplings and acetylation with acetic anhydride are used at cycles 1-2, 4, 10-13, 17, 27, 32, 49, 59, 66, 75-78, 84-85, 88, 96-97 and 104-105.

15. Process according to any one of claims 10 to 14, wherein the solid phase is TentaGel S RAM Spezial.

16. Process according to any one of claims 10 to 15, wherein a cysteine unit is added to the peptide at the N-terminus and/or the C-terminus.

17. Use of a peptide of any one of claims 1 to 9 as carrier for a conjugate.

18. Use of a peptide of any one of claims 1 to 9 as carrier for a polysaccharide selected from lipopolysaccharides, O-antigens, or bacterial, capsular or fungal membrane polysaccharides.

19. Use of a peptide of any one of claims 1 to 9 as carrier for Polysaccharide C of *Neisseria meningitidis*.

20. Conjugate comprising a peptide according to any one of claims 1 to 9 and a immunoreactive molecule.

21. Conjugate according to claim 20, wherein the immunoreactive molecule is a polysaccharide.

22. Conjugate according to claim 20 or 21, comprising the peptide of any one of claims 1 to 9 with an additional cysteine residue, a bifunctional linker and a polysaccharide, wherein the peptide is bonded to the linker via the thiol group of the cysteine and the polysaccharide is bonded to the other functional group of the linker via a hydroxy, carboxy or amino group.

23. Conjugate according to any one of claims 20 to 22, wherein the polysaccharide is Polysaccharide C of *Neisseria meningitidis*.

24. Conjugate according to any one of claims 20 to 23, wherein one mole of peptide per 50 to 1 moles of repeating units of the polysaccharide is present.

25. Vaccine comprising the conjugate of any one of claims 20 to 24 together with conventional carriers, excipients and/or diluents.

add
a5

add
D1